

What is claimed is:

1. A method of inserting sync signal into audio file containing a plurality of frames, each frame includes a
5 first part in which audio contents are stored, a second part which contains at least information of a size of the first part, and a third part which text and sync signal can be inserted into and is within the first part, comprising:
 - (a) obtaining information of a size of the first part
10 of the frame from the second part of the frame;
 - (b) determining a start position and a size of the third part of the frame based on the obtained information;
and
 - (c) inserting at least a part of the sync signal into
15 the third part of the frame.
2. The method according to claim 1, wherein the first part contains the audio contents, the second part contains header information of the audio file, and the third part is
20 a part which is within the first part and least affects the sound quality while playing audio file.
3. The method according to claim 1, wherein the third part contains an area which presents whether the sync
25 signal exists, and an area which presents contents of the

sync signal.

4. The method according to claim 1, wherein the sync signal contains information of a position of a text which
5 corresponds to the first part of the frame.

5. The method according to claim 1, wherein said step
(c) comprises:

deciding whether to insert the sync signal into the
10 third part; and

inserting text information which corresponds to the first part of the frame into the third part of the frame, in response to the decision of not inserting the sync signal.

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6. The method according to any one of claims 1 to 5, wherein said step (c) comprises:

comparing the sync signal inserting space in the third part with the size of the sync signal, and in case
20 that the sync signal inserting space in the third part is smaller than the size of the sync signal, inserting a part of the sync signal into the third part wherein the part of the sync signal has an equivalent size to the sync signal inserting space.

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7. The method according to claim 1, wherein the audio contents are produced by TTS (Text-to-Speech) transformation of the text.

5 8. A method of detecting sync signal from an audio file containing a plurality of frames, each frame includes a first part in which audio contents are stored, a second part which contains at least information of a size of the first part, and a third part which text and sync signal can
10 be inserted into and is within the first part, comprising:

extracting information of a start position and a size of the third part based on the information of the size of the first part;

analyzing the third part to decide whether the sync
15 signal exists; and

obtaining at least a part of the sync signal from the third part, in response to the decision that the sync signal exists.

20 9. The method according to claim 8, wherein the first part contains the audio contents, the second part contains header information of the audio file, and the third part is a part which is not used in playing the audio contents of the audio file.

10. The method according to claim 8, wherein the third part contains an area which presents whether the sync signal exists, and an area which presents contents of the sync signal.

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11. The method according to claim 8, further comprising:
extracting text information from the third part, in response to the decision that the sync signal does not exist.

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12. The method according to claim 8, further comprising:
analyzing contents of the sync signal, and thereafter constituting text information corresponding text based on the analysis.

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13. The method according to any one of claims 8 to 12, further comprising:

combining at least a part of the sync signal with at least a part of the sync signal of the subsequent frame, in
20 case that at least a part of the sync signal obtained from the third part is not the same as the sync signal.

14. An apparatus for detecting a sync signal from an audio file containing a plurality of frames, each frame
25 includes a first part in which audio contents are stored, a

second part which contains at least information of a size of the first part, and a third part which text and sync signal can be inserted into and is within the first part, comprising:

- 5 a decision portion of extracting information of a start position and a size of the third part based on information of the size of the first part, and deciding whether the sync signal exists by analyzing the third part; and
- 10 a sync signal obtaining portion of obtaining at least a part of the sync signal from the third part, in response to the decision that the sync signal exists.